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ABSTRACT

Academic planning in higher education is strongly influenced by business management theories and practices. The author questions the usefulness of this approach because the nature of higher education differs from the nature of a profit-making business. However, rational planning to achieve efficiency is relevant if efficiency is not confined to values that are measured in money or traded in a market. Academic planning must take into account all the benefits whether or not they are readily quantifiable, and must consider all the costs whether or not they are quantifiable. An analogy between higher education institutions and the family is drawn to illustrate this. The point is also made that more knowledge is needed about the relation between the resources and technologies employed and the true outcomes in human terms to make academic planning possible. Several examples of the decision-making process in long-range planning are given to illustrate the kinds of questions that must be answered in the planning activity. The main task of planning is to implement a coherent philosophy of higher education that sets the general costs and results and to communicate the plan to the academic community through a consistent pattern of decisions. (JMF)

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Systems Theory, Excellence, and Values: Will They Mix?

by Howard R. Bowen

This paper is concerned with the *spirit* in which academic planning is conducted. The text is a famous passage from Cardinal Newman:

> A university is . . . an Alma Mater, knowing her children one by one, not a foundry, or a mint, or a treadmill.[1]

The same concept was expressed by John Dewey who said:

> What the best and wisest parent wants for his child, that must the community want for all its children. Any other ideal for our schools is narrow and unlovely; acted upon it destroys our democracy.[2]

Much of the discussion of planning for higher education today is strongly influenced by the point of view and the jargon of business management. Phrases such as cost-benefit analysis, cost effectiveness, marginal cost analysis, systems analysis, accountability, market research, program budgeting, management by objectives, computerized models for long-range projections, and so forth, are commonplace in the discussions of planning, though less so in the actual practice of planning. The underlying assumption is that the techniques and the point of view of business planning are applicable to higher education. Some enthusiasts even argue that the financial problems of higher education would be resolved if only it would adopt "sound, hard-headed, rational" business management procedures. This claim surely exaggerates the potential returns from any conceivable managerial technique.

This writer is somewhat skeptical about the management movement for higher education. Even the use of the word "management" may be somewhat dubious — it seems alien to an organization that is in its essential nature a community and that bears little resemblance to a profit-making business, a governmental bureau, or an army.

This does not mean opposition to planning for higher education. Rational planning to achieve efficiency is relevant to any human activity in which valuable means are employed to achieve desired ends. Efficiency is not confined to values that are measured in money or traded in a market. It applies wherever ends are sought, whether these ends be mundane consumer goods such as bread or gasoline, or intangible goals such as personal serenity, artistic appreciation, or humane learning.

Concepts of Efficiency Necessary

The concepts of efficiency and of planning for efficiency are surely not out of place in higher education. For example, one can be quite sympathetic to Dr. Alexander Astin's proposal for educational planning in which the measured outcomes to students would be related to inputs of resources and the instructional techniques employed.[3] Other promising work is that of William Massey at Stanford who is developing a dynamic financial model of a university specifying the equilibrium conditions under which revenues cover expenditures on a sustainable basis. Nevertheless, planning in the style of business management tends to focus on variables that can be quantified *to the exclusion of other variables,* and it assumes the presence of a management which has the power of command over the organization.

The thesis of this paper is simple and obvious. It is that academic planning worth anything will take into account *all* the benefits whether or not they are readily quantifiable, and will consider *all* the costs whether or not they are quantifiable. Any system of planning that counts enrollment as the sole output and that counts cash outlays for

[1] *The Scope and Nature of University Education* (New York: E. P. Dutton & Co., 1958), p. 122.

[2] Reginald D. Archambault (editor), *John Dewey on Education* (Chicago: University of Chicago Press, 1974), p. 295.

[3] *Student-oriented Management Information Systems.* Paper presented at a conference on "Academic Planning for the Eighties and Nineties," University of Southern California, January 22, 1976.

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institutions and student aid as the sole costs will at best be irrelevant and will at worst convert education into a treadmill (to quote Cardinal Newman) and possibly destroy our democracy (to quote John Dewey). Educators should scrupulously resist the kind of planning, now being thrust upon them by a multitude of outside pressures, that reduces everything to a few simple numbers. They should insist on looking squarely at the means and the ends in human terms.

The problem was not so serious in the simpler days when higher education was a modest enterprise and the relatively small single campuses enjoyed considerable autonomy. But today planning takes place increasingly in huge universities, complex multi-campus institutions, statewide coordinating bodies, legislative committees, and state finance offices. Political and bureaucratic mentality is rapidly gaining influence. As a result, the tendency to think in narrow quantitative terms and to ignore the human dimensions of ends and means has become alarming.[4]

Analogy Between Institutions, Family

It is useful to draw on the analogy between a college or university and a *family*. A family provides a place where people live. When efficiency for a family is spoken of, there is no talk of brownie points (credits) earned, cost per person, ratio of parents to children, or index of space utilization. Rather the success of a family is judged in terms of mutual affection, solidarity, helpfulness, willingness to sacrifice for one another, the aspirations and values held up to its numbers, its style of life, and the kinds of people it produces. Because the factors making for the success or failure of families are so subtle and intangible, the connections between inputs and outputs in families are not readily discernible. We know a good family when we see one (though there may be differences of opinion in some cases) and when we do see it we consider it more as a work of art than as if it were the product of some standardized technology.

From a narrow pecuniary point of view, the typical American family is grossly inefficient. It wastes housing space. It provides specialized rooms for sleeping, eating, work, and recreation which are unused most of each day. It conducts its food preparation on an inefficiently small scale. It operates two cars which remain in the garage or on a parking lot most of the time. The mother may refrain from joining the paid labor force. The typical family caters to the special needs of its individual members and loses many of the economies of scale. Indeed, these inefficiencies are applauded and termed a high standard of living. Judgments are made as to what constitutes an acceptable minimal family income, but this amount is regarded as a necessary but not sufficient condition for achieving the intangible qualities of a good family. It is recognized that the performance of families cannot be measured by money alone, and that the concept of efficiency for families has little kinship with that of efficiency for factories or government bureaus.

A college or university is much like a family. It is a place where people are joined in common pursuits. It is designed for the personal development of people of all ages, for the preservation and advancement of learning and the arts, and directly and indirectly for the advancement of society. Production in higher education is the transformation of resources into desired intangible traits and behavior of human beings. A college or university does its work through creating an *environment* calculated to bring about desired characteristics in people and to facilitate scholarly endeavor. The environment consists of attributes, some seen and some unseen. The visible attributes are an aggregation of land, buildings, equipment, and supplies; and a group of people including students, faculty, staff, and governing groups. The invisible environment is a *culture*. The campus culture consists of the prevailing ways of doing things, the common values, expectations, standards, assumptions, traditions, behavioral patterns, and an ineffable quality called "atmosphere."

. . . academic planning worth anything will take into account *all* the benefits whether or not they are readily quantifiable, and will consider *all* the costs whether or not they are quantifiable.

A peculiarity of an academic environment is that the people involved — both students and faculty — not only draw from the environment but contribute to it as participants. They provide the role models, the peer groups, the experiences in inter-personal relations which are so significant in human development and in scholarly productivity. By serendipity their participation enhances the benefits they receive.

Various persons will have differing responses to the academic environment. The goals are not specific objectives forced upon people, but are a broad range of opportunities which people are free to accept and to use in different ways. College is a place of stirring; it is a catalyst to help people find their unique ways, not a rigidly patterned system designed to produce preprogrammed out-

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[4] Harold L. Enarson, "The Art of Planning," *Educational Record* (Summer 1975), pp. 170-74; and Ida R. Hoos, "The Costs of Efficiency," *Journal of Higher Education* (March/April 1975), pp. 141-59. These two papers can be strongly recommended.

comes for everyone; it is intended to give each person the chance to work out his unique destiny in a setting that raises aspirations, that permits exploration and experimentation, that provides encouragement and support, and that offers the chance to learn in both the cognitive and affective spheres. Similarly, the outcomes of research and public service activities are determined primarily by the interaction of the institutional environment and faculty, the faculty having considerable latitude in choice of activities, subject matter fields, and procedures.

Modest progress has been made in identifying and measuring the true human and intellectual outcomes of higher education, and in relating inputs to outputs. Yet the principles of production in higher education are only vaguely known except through tradition, intuition, and judgment. A good college or university, like a good family, is largely *a work of art.*

In the case of higher education, there is no clear notion as to what constitutes poverty or minimal adequacy of resources for achieving any particular mission. Institutions are operated with widely varied expenditures per student. For example, according to the Carnegie Commission, educational and general expenditures per student in as homogeneous a category of institutions as selective liberal arts colleges ranged in 1967-68 from $900 to $5,900 (a difference of $5,000). And the range between the first and third quartiles was from $1,800 to $2,800 (a difference of $1,000 per student).[5]

Similar differences were recorded as well among institutions of other categories. The presumption is that the expensive institutions are producing outcomes that are superior in some sense to those produced in the less expensive institutions, but no one can be sure that that is the case. There are even less clear notions as to how given resources should be deployed internally to produce the best results. In one's cynical moments, it is easy to believe that the whole higher educational enterprise is run on three crass principles: (1) each institution gets all the money it can raise, (2) it spends all the money it can get, and (3) its internal allocations are arranged on the basis of incremental annual adjustments that in turn are based on external and internal political pressures.

Planning Requires More Knowledge

In view of existing monumental ignorance, one must raise the question of whether academic planning is possible — in the sense of measuring the means and the ends. The condition of the industry certainly suggests the need for more knowledge about the relation between the resources and technologies employed and the true outcomes in human terms. The exploration of these relationships can be seen as the primary task of those who would improve rational planning in higher education. Without adequate knowledge in these areas, which will require decades of research, higher education is in a sense flying blind. It is largely dependent on tradition, intuition, and judgment for guidance in its decision making. This is not to deprecate tradition, intuition, and judgment. These are the only sources of wisdom in most of the important matters of life: for example, love, friendship, religion, morality, beauty, personal life style, and foreign policy. In higher education, as well, there is little alternative but to rely on tradition, intuition and judgment. But one would wish in any of the areas mentioned that a bit more was known about the relationship of decisions and actions to goals.

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Now, to turn to the actual decision-making process in higher education: Educators and administrators are all aware of the constraints imposed by external and internal pressures. The president is often described as the person in the middle who is merely the mediator among a multitude of pressure groups. This description fits especially in institutions that are largely governed by formulas imposed by external public bodies. But to the extent that autonomy remains, this writer believes that presidents and their close associates can be leaders, and that they can amass considerable power in league with their administrative colleagues and boards; that they can win faculty, student, and public support for significant plans; and that they can give effect to these plans through timely, astute, incremental action.

Even in those institutions where autonomy is minimal, presidents and their associates can influence the external governing body. But leadership can be effective only if it is based on a coherent long-range plan which in turn is founded on a sound educational philosophy. The importance of the underlying philosophy cannot be overemphasized. Such a plan may or may not be reduced to writing. In either case it should be flexible enough to allow for unexpected circumstances but not so flexible as to deny the philosophy on which it is based. Such a plan is necessary if specific opportunities for action leading to specific decisions are to add up to anything significant over a period of years. It is a kind of road map which indicates the leader's destination, describes the best route to that destination, and traces out alternative paths if the main route should be blocked. The result of such planning and execution is the work of art referred to earlier.

A good plan will avoid two frequent errors. The first, common to legislatures and economy-minded critics, is to judge efficiency only in relation to cost on the assumption

[5] Carnegie Commission on Higher Education, *New Students and New Places* (New York: McGraw-Hill, 1971), pp. 70-80.

that any change in procedure which costs less, regardless of its effect on outcomes, is efficient. The second error, common to the proponents of higher education, is to judge efficiency only in relation to outcomes on the assumption that any change in procedure which improves outcomes, regardless of cost, is desirable. Both of these approaches fail to recognize that efficiency is a relationship between two variables, cost and outcome, and cannot be measured by either one alone.

Examples of Decision Making

Below are some illustrations, based on the writer's experience, of institutional decision making in the context of a long-range plan. This is done to show how foreign most actual decision making is, and must be, to the so-called managerial approach to college administration.

The first example relates to the allocation of faculty among departments. Suppose opportunity has opened up to add a new professorship. The department of history is strong; the department of sociology is weak. Should the professorship be placed in sociology or history? The easy answer is sociology. But this answer implies that all departments should be of about equal academic strength which may lead to a general mediocrity of the whole academic community. May it not be better to convert history from a strong to a superb department on the principle that the effectiveness of the total academic community will be enhanced by developing some centers of exceptional academic strength even at the cost of holding other departments at lesser strength? The decision in favor of history would be clearer if it happened that a distinguished historian were available but not a sociologist of equal distinction.

The point of this is not to provide a solution to one concrete problem, but only to cite a specific issue where the president is cast in the role of artist. His canvas is the total academic community. His artistic judgment is like that of a painter who is deciding on the strength of the red color in a particular part of his canvas or like that of a symphony director who expresses his aesthetic judgment in determining the tempo and the loudness of the brass section in a particular musical passage.

Production in higher education is the transformation of resources into desired intangible traits and behavior of human beings.

In another illustration, the plan calls (in this case secretly) for the elimination of several departments which are deemed to be obsolete and nonessential. With the retirement of the last tenured professor in one of these departments, it is decided to act with respect to that department. There is an immediate uproar which includes not only the remaining staff of the department but also the relevant national and state professional associations, alumni, the state legislature, and currently enrolled students. Added to the uproar is the voice of faculty members in vulnerable departments who suspect that their departments may be next, and all the friends of these people.

The question, then, is whether the leaders should push through a series of bloody battles year after year in order to prune several departments representing one-half of one percent of the budget. Would it be wiser to devote administrative energy to other, more productive matters and find the budgetary saving in some other way — for example, by slowing up the increase in faculty salaries? Again, the question is not answered. This merely demonstrates that real life decisions are often judgmental. They are part of the process of producing a work of art. Sometimes part of what the painter puts on a canvas must be removed and replaced by new brush strokes or there may be a place for dissonances in a musical composition.

Another example relates to elimination of faculty deadwood by withholding increases in salary and rank and by early retirement. The question here is one of fairness, humanity toward the people involved, and also the effect on the morale of the younger faculty, each of whom realizes that someday he also will grow old. Is it better to put up with some deadwood or find useful and dignified

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things for the less creative people to do and thus maintain a secure and loyal faculty, or is it better to push such people out? Again the question is not answered. It is simply pointed out that artistry is called for in another part of the canvas.

The final example concerns buildings. How important educationally is it to have an aesthetically satisfying campus with well-sited, well-designed buildings; pleasing landscapes; and attractive interiors? And how valuable is tidiness in building maintenance? These are matters on which non-quantitative artistic judgments must be made about costs and outcomes.

The same kinds of questions must be answered by academic leaders about building utilization, the curriculum, size of classes, mechanized instruction and other new methods of teaching-learning, faculty teaching loads, admissions criteria, and a host of other matters.

The main task of planning is to implement a coherent philosophy of higher education which sets the general goals and results in a work of art. One important task of leaders is to communicate the plan to the academic community. This can be done in many ways. The most important way is a consistent pattern of decisions. Other devices are formal reports, informal memoranda, speeches,

casual comments in board and committee meetings or even at cocktail parties. Informal modes of communication are often more effective than formal ones. The problem is continually to transmit signals through actions and words consistent with the plan.

Conclusion

In conclusion, a word should be said about forecasting — which is an important part of the apparatus of the managerial approach to planning. No reasonable person can be averse to forecasting — provided the forecasts are not taken too seriously. The best assumption to make about the future is that it will bring surprises. For example, today it is not known for any given future date whether the nation will be at war or at peace, in depression or prosperity, in inflation or deflation. Educators and administrators are in the dark about future attitudes of potential students toward availing themselves of higher education, their preferences for different courses of study, and their behavior patterns. Student decisions are highly volatile. Educators are ignorant about future public attitudes toward the support of higher education. They have only the vaguest notions about future demands of adult learners. They have no knowledge of future governmental programs which may have profound effects on enrollments, financial support, and the responsibilities of higher education.

Even this year, enrollments in the public sector are steady and in the private are far above expectations, and no one really knows why. A year or two ago people were saying that the slack job market would discourage college attendance; now they are saying that unemployment is the cause of the increased enrollment. Another illustration of sudden changes in student behavior occurred at the time of Cambodia and Kent State. After the events of the spring of 1970, most educators had forebodings about the following fall. Yet, when autumn came, the students returned in a nonbelligerent and cooperative mood.

One must be very cautious and humble about forecasts and projections. This is said with some feeling because of the writer's professional experience as an economist, which affords expertise on the pitfalls of forecasting. Harsh experience has demonstrated how wrong forecasts and projections can be, how easy it is to overlook major variables, and how often one is confounded by surprises.

In the present state of ignorance of educators, the best foundation for planning is a solid and consistent philosophy of education and steadfast adherence to that philosophy as events unfold and decisions are made. The best approach to the improvement of planning is to give more thought to educational philosophy and to learn more about the functional relations between resource inputs and technologies on the one hand and the outcomes in human terms on the other.

. . . leadership can be effective only if it is based on a coherent long-range plan which in turn is founded on a sound educational philosophy.

Finally, one should heed the advice of an economist who has a sign in his office which reads, "Statistics are no substitute for judgment."

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